REMARKS

Applicant replies to the Office Action mailed May 18, 2007 and the subsequent Advisory Action mailed July 9, 2007. Claims 1-52 and 55 were pending in the application and the Examiner rejects claims 1-52 and 55. Support for the amendments may be found in the originally-filed specification, claims, and figures. No new matter has been introduced by these amendments.

The Examiner has objected to claim 1, 24 and 46 as being unpatentable over *Carpentier* in view of *Williams*. Claim 1 has been amended to define the invention more clearly. In particular, claim 1 has been amended to replace 'secondary application' with 'database'. Basis for this amendment can be found throughout the specification.

Further, it is now clearly defined that the first and second reduced representations are compared so as to provide an indication of the integrity of the database <u>by determining whether the database structure changed during a time between when the first reference reduced representation and second reduced representation were obtained</u>. Basis for this amendment can be found for example, on page 14, line 18 to page 15, line 22.

Claim 2 has been cancelled. Claims 24 and 46 have been amended so they refer back to the method of claim 1.

Referring to the Examiner's arguments that *Williams* is in the same field of endeavour as the applicant, we make the following arguments. We do not believe that the Examiner's stated field of endeavour is correct. The stated field of endeavour does not identify the problem that the pending application is directed towards solving nor is it associated with the distinguishing features of the invention. The Examiner has used hindsight to define a field that fits in with the document he has found (*Williams*). Without using hindsight it is clear that the present application is directed towards the problem of how to verify the integrity of a database, as shown by the pre-amble of independent claim 1, and not merely a problem of being able to use a database.

Therefore, our arguments as to why *Williams* is not valid prior art as it is non-analogous are maintained, and we refer the Examiner to our previous responses. In summary, *Williams* is not related to the problem of verifying the integrity of a database, but is merely allowing schema data from a number of databases to be retrieved to allow a standardized view of the databases to be

produced. Further, referring to col.7, lines 3-7 of *Williams*, which the Examiner referred to in the advisory action, it is quite clear that *Williams* is teaching away from the problem being addressed by the pending application as *Williams* is directed towards allowing applications access to **multiple databases** by translating **every database** into a standardized template, whereas the present application is directed towards verifying the integrity of **a database** by taking a snapshot of the schema metadata representative of the database structure of **the database** at two different times so that a determination as to whether the structure has changed can be made. That is, the present invention is only concerned during each integrity check with **a single database** (although it will be understood that further databases may be verified using integrity checks associated with those further databases. Further, for the reasons stated above, there is no teaching, suggestion or motivation in *Williams* to combine its contents with *Carpentier* to solve the problem of verifying the integrity of a database.

It has become extremely unclear what features of the claims of the pending application are purported by the Examiner to be taught within *Carpentier*. For example, referring to the Examiner's final office action, the arguments raised therein appear to identify multiple different elements in *Carpentier* as being analogous to a single element in the claim.

The Examiner initially defines the first reference reduced representation of the claims to be the computed cryptographic hash descriptor file identifier (i.e. the eClip, which is a hash of the descriptor file) in *Carpentier*. Then the first reference reduced representation is defined as the hash of an asset, which is stored in the descriptor file. It is then stated by the Examiner that the hash of an asset could be either a first or second reduced representation. Further, the first reference reduced representation is then defined as the unique identifier (within the eClip), and the second reduced representation is defined as the cryptographic hash of the received descriptor file.

The Examiner further defines the second reduced representation as a hash of an asset which, the Examiner states, could be either the first or second reduced representation (presumably 230 and 240 in Figure 2 of *Carpentier*). Therefore, the first reduced representation must be a hash of asset A, and the second reduced representation must be a hash of a different asset, such as asset B, i.e. hashes of different assets (as shown in Figure 2). However, if this is the case, then the reduced representations can not come from the same database as claimed (as they are different assets).

As the Examiner relates **different elements** in *Carpentier* to the same feature listed at different stages in the claims, the Examiner's arguments are not logical and do not read onto the claims.

Referring to the advisory action, the Examiner asserts that the first reference reduced representation is file 222 in the descriptor file, which includes a hash of an asset, and the second reference reduced representation is file 232 in the descriptor file, which includes a hash of a different asset to that of file 222. Therefore, files 222 and 232 include reference reduced representations of **different files**.

This is clearly not the same as the claims in the pending application, as the claims of the pending application take reference reduced representations of the **same database** to compare, and **not** different databases.

. That is, it is clearly seen in Figure 2 that the two files 222 and 232 include the hash of those files. The files have different names, and so are different files. However, the claims of the present invention include the limitation that the first reference reduced representation is <u>of the first obtained</u> <u>schema metadata representative of a database structure of the database.</u> Further, the claims of the present invention include the limitation that the second reference reduced representation is <u>of the</u> <u>second obtained schema metadata representative of the database structure of the database</u>, i.e. **the same database.**

Carpentier teaches that the unique identifier in the eClip is compared with the hash of the descriptor file that is received. However, *Carpentier* merely determines from this comparison whether the unique identifier in the received eClip is the same as the hash of a received descriptor file, and does not teach comparing first and second reduced representations so as to provide an indication of the integrity of a database by determining whether a database structure has changed during a time between when the first reference reduced representation and second reduced representation were obtained (that is, between the time when the unique identifier in the eClip was created by hashing the descriptor file, and the time when the received descriptor file is hashed).

In *Carpentier*, if one of the assets, e.g. files, had changed, there is no teaching within *Carpentier* of determining if such a change had taken place. Indeed, if a new asset is created, it is

assumed that a new descriptor file will be created and stored for that new asset. Subsequently, if an eClip is received with a unique identifier associated with the new asset, a request is the transmitted for a descriptor file associated with that new asset. The descriptor file that is subsequently received is associated with the new asset and not the original asset. Therefore, there is no teaching within *Carpentier* for determining if the new asset is different to the original asset, as the descriptor files are first stored prior to any changes made to the asset and then resent without any changes made to the descriptor file associated with that asset, even if the asset has changed.

Three scenarios are provided below to highlight the difference between *Carpentier* and the pending claims.

Scenario 1: An original asset is verified

1. Asset A (original) – descriptor file A (original) is created and stored.

2. An eClip is received with a unique identifier associated with asset A (original), i.e. a hash of descriptor file A (original).

3. A descriptor file is requested for Asset A (original).

4. The received descriptor file is descriptor file A (original), and is hashed and compared with the unique identifier in the eClip.

5. Asset A (original) is verified.

Scenario 2: An asset changes prior to the unique identifier being created

1. Asset A (original) changes to Asset A (new)

2. Descriptor file A (new) is created and stored.

3. An eClip is received with a unique identifier associated with asset A (new), i.e. a hash of descriptor file A (new).

4. A descriptor file is requested for Asset A (new).

5. The received descriptor file is descriptor file A (new), and is hashed and compared with the unique identifier in the eClip.

6. Asset A (new) is verified.

Scenario 3: An asset changes after the unique identifier has been created

1. Asset A (original) - descriptor file A (original) is created and stored.

2. Asset A (original) is modified and becomes Asset A (new).

3. An eClip is received with a unique identifier associated with asset A (original), i.e. a hash of descriptor file A (original).

4. A descriptor file is requested for Asset A (original).

5. The received descriptor file is descriptor file A (original), and is hashed and compared with the unique identifier in the eClip.

6. Asset A (original) is verified, as the received descriptor file is the same descriptor file created and stored for the unique identifier sent with the eClip.

As shown in scenario 3, even though the asset has changed (at step 2) there is no teaching in *Carpentier* for determining a change to that asset has taken place between the times when the first and second reduced representations were created, i.e. between steps 1 and 5. This is because *Carpentier* only teaches sending a descriptor file that is associated with the received eClip.

If in scenario 3 at step 3 an eClip was received with a unique identifier associated with Asset A (new), as opposed to Asset A (original), then a descriptor file is requested for Asset A (new), which will result in Asset A (new) being verified. This does not show that the Asset has changed, but that the asset received, asset A (new), is what it purports to be.

For these reasons, claims 1, 24 and 46 are considered to be novel and inventive over the prior art of record. The dependent claims are also considered to be novel and inventive when dependent on claims 1, 24 and 46.

Based on our arguments above, we trust this application is now in order for allowance.
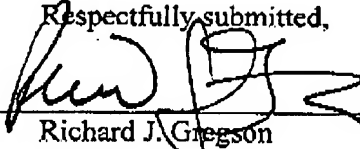
CONCLUSION

In view of the above remarks, Applicant respectfully submits that pending claims 1, 3-52 and 55 properly set forth that which Applicant regards as his invention and are allowable over the cited references. Accordingly, Applicant respectfully requests allowance of the pending claims. The Examiner is invited to telephone the undersigned at (215) 986-3325 at the Examiner's convenience, if that would help further prosecution of the subject Application.

Respectfully submitted,

Date: _15 Aug 2007_   By: _____

Richard J. Gregson
Reg. No. 41,804

Unisys Corporation
Office of the General Counsel
MS\E8-114
Unisys Way
Blue Bell, PA 19424
(215) 986-3325